

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application Of: Yuh-Ren Shen

Confirmation No. 4610

Serial No.: 10/761,154

Examiner: Jankus, Almis R

Filed: January 20, 2004

Group Art Unit: 2628

For: **Pixel Structure**

TKHR Ref. 250321-1020

Top-Team Ref. 0412-8666US

AMENDMENT AND RESPONSE TO OFFICE ACTION

The Office Action mailed March 22, 2006, has been carefully considered. In response thereto, Applicant requests entry of the following amendments and consideration of the following remarks.

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (Currently Amended) A pixel structure of transfective LCD disposed between a first data line and a second data line, comprising:

a reflective cell comprising a first transistor and a first reflective electrode, wherein the first transistor comprises a gate coupled to a scan line, a source coupled to the first data line, and a drain coupled to the first reflective electrode, and the first transistor is covered by the first reflective electrode;~~and~~

a transmission cell comprising a second transistor and a transparent electrode, wherein the second transistor comprises a gate coupled to the scan line, a source coupled to the second data line, and a drain coupled to the transparent electrode, and the second transistor is covered by a second reflective electrode;

a first storage capacitor coupled to the first transistor; and

a second storage capacitor coupled to the second transistor.

2. (Original) The pixel structure of transfective LCD of claim 1, wherein the second reflective electrode is a first reflective electrode of another pixel structure.

3. (Original) The pixel structure of transfective LCD of claim 1, wherein the drain of the first transistor is coupled to the first reflective electrode by a first plug, and the drain of the second transistor is coupled to the transmission electrode by a second plug.

4. (Currently Amended) The pixel structure of transfective LCD of claim 3, ~~further comprising a~~ wherein the first metal layer and a second storage capacitors are metal layers; ~~acting as storage capacitors,~~ disposed under the first plug and the second plug respectively.

5. (Currently Amended) A pixel structure of transfective LCD disposed between a first data line and a second data line, comprising:

a reflective cell comprising a first transistor and a first reflective electrode, wherein the first transistor comprises a gate coupled to a scan line, a source coupled to the first data line, and a drain coupled to the first electric electrode; and

a transmission cell comprising a second transistor and a transparent electrode, wherein the second transistor comprises a gate coupled to the second line, a source coupled to the second data line, and a drain coupled to the transparent electrode, and the first transistor and the second transistor are covered by the first reflective electrode; and

at least one storage capacitor coupled to the first and second transistors.

6. (Original) The pixel structure of transfective LCD of claim 5, wherein the drain of the first transistor is coupled to the first reflective electrode by a first plug, and the drain of the second transistor is coupled to the transparent by a second plug.

7. (Currently Amended) The pixel structure of transfective LCD of claim 6, ~~further comprising wherein the at least one storage capacitor comprises:~~

a first metal layer, disposed under the first plug, coupled to the first transistor via the first plug; and

a second metal layer, ~~acting as storage capacitors, disposed under the first plug and the second plug respectively,~~ coupled to the second transistor via the second plug.

8. (Original) The pixel structure of transfective LCD of claim 5, wherein the first data line and the second data line are bent, the drain of the first transistor is coupled to the first reflective electrode by a first plug, and the drain of the second transistor is coupled to the transparent by a second plug.

9. (Currently Amended) The pixel structure of transfective LCD of claim 8, ~~further comprising wherein the at least one storage capacitor is a metal line disposed under the drains of the first and second transistor, acting as a storage capacitor.~~

10. (Currently Amended) The pixel structure of transfective LCD of claim ~~8~~9, wherein the metal line is bent, ~~and the metal line acting as a storage capacitor is disposed under the drains of the first and second transistor.~~

11. (Currently Amended) A pixel structure of transfective LCD disposed between a first data line and a second data line, comprising:

a reflective cell comprising a first transistor and a first reflective electrode, wherein the first transistor comprises a gate coupled to a first scan line, a source coupled to the first data line, and a drain coupled to the first reflective electrode, and the first transistor is covered by the first reflective electrode; and

a transmission cell comprising a second transistor and a transparent electrode, wherein the second transistor comprises a gate coupled to a second scan line, a source coupled to the first data line, and a drain coupled to the transparent electrode, and the second transistor is covered by a second reflective electrode;

a first storage capacitor coupled to the first transistor; and

a second storage capacitor coupled to the second transistor.

12. (Original) The pixel structure of transfective LCD of claim 11, wherein the second reflective electrode is a first reflective electrode of another pixel structure.

13. (Original) The pixel structure of transfective LCD of claim 11, wherein the drain of the first transistor is coupled to the first reflective electrode by a first plug, and the drain of the second transistor is coupled to the transparent electrode by a second plug.

14. (Currently Amended) The pixel structure of transfective LCD of claim 13, ~~further comprising wherein the~~ a first metal layer and a second metal layer, acting as storage capacitors, are metal layers disposed under the first plug and the second plug respectively.

15. (Currently Amended) A pixel structure of transfective LCD disposed between a first data line and a second data line, comprising:

a reflective cell comprising a first transistor and a first reflective electrode, wherein the first transistor comprises a gate coupled to a scan line, a source coupled to the first data line, and a drain coupled to the first reflective electrode; and

a transmission cell comprising a second transistor and a transparent electrode, wherein the second transistor comprises a gate coupled to a second scan line, a source coupled to the first data line, and a drain coupled to the transparent electrode, and the first and second transistor are covered by the first reflective electrode; and

at least one storage capacitor coupled to the first and second transistors.

16. (Original) The pixel structure of transfective LCD of claim 15, wherein the drain of the first transistor is coupled to the first reflective electrode by a first plug, and the second transistor is coupled to the transparent electrode by a second plug.

17. (Currently Amended) The pixel structure of transfective LCD of claim 16, ~~further comprising wherein the~~ at least one storage capacitor comprises:

a first metal layer, disposed under the first plug, coupled to the drain of the first transistor via the first plug; and

a second metal layer, acting as storage capacitors, disposed under the first plug and the second plug respectively, coupled to the drain of the second transistor via the second plug.

18. (Original) The pixel structure of transflective LCD of claim 15, wherein the first transistor and the second transistor are disposed on different sides under the transparent electrode.

19. (Currently Amended) The pixel structure of transflective LCD of claim 16, ~~further comprising~~ wherein the at least one storage capacitor is a first metal layer acting as a storage capacitor disposed under the first plug, and extending to an underside of the drain of the second transistor.

REMARKS

The Examiner is thanked for the thorough examination of the present application and the indication that at least claims 4, 7, 9, 10, 14, 17, and 19 contain allowable subject matter. The Office Action, however, has tentatively rejected the remaining claims. In response, Applicant submits this amendment, in which claims 1, 4, 5, 7, 9, 10, 11, 14, 15, 17, and 19 are amended. Reconsideration of this application is respectfully requested in view of the foregoing amendment and the following remarks.

Discussion of Rejections Under 35 U.S.C. §102

The Office Action rejected claims 1-3, 5, 6, 8, 11-13, 15, 16, and 18 under 35 U.S.C. § 102(e) as allegedly anticipated by Wen et al.

Independent claim 1 has been amended to incorporate the features of: “a first storage capacitor coupled to the first transistor; and a second storage capacitor coupled to the second transistor.” These newly added features are not taught or suggested in Wen.

Independent claim 11 has been amended to add the features of: “a first storage capacitor coupled to the first transistor; and a second storage capacitor coupled to the second transistor.” These newly added features are not taught or suggested in Wen.

Independent claim 15 has been amended to add the feature of “at least one storage capacitor coupled to the first and second transistors.” This newly added feature is not taught or suggested in Wen.

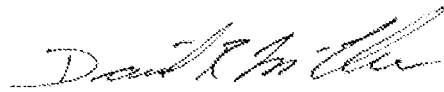
Based on the amendments to independent claims 1, 11, and 15, these claims define over the cited Wen patent. As all remaining claims depend from these claims, all claims are now in proper condition for allowance.

Therefore, Applicant respectfully requests the Examiner reconsiders this application and emphasis all of amendments is to bring the claims into allowance.

No fee is believed to be due in connection with this amendment and response to Office Action. If, however, any fee is believed to be due, you are hereby authorized to charge any such fee to deposit account No. 20-0778.

Respectfully submitted,

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